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# United States Department of Agriculture,

DIVISION OF PUBLICATIONS-Circular 7.

JOS. A. ARNOLD, Editor and Chief.

Washington, D. C., March 10, 1913.

# PUBLICATIONS OF THE BUREAU OF CHEMISTRY.

NOTE.—Application for publications in this list should be made to the Editor and Chief of the Division of Publications, United States Department of Agriculture. Washington, D. C. The editions of some of the publications are necessarily limited, and when the supply is exhausted and no funds are available for procuring additional copies, applicants are referred to the Superintendent of Documents, Government Priating Office, who has them for sale at a nominal price, under the law of January 12, 1895. Applicants are urgently requested to ask only for those publications in which they are particularly interested. The department can not undertake to supply complete sets, nor is it allowable to send more than one copy of any publication to an applicant.

#### REPORTS.

Report of the Chemist for the Year 1890.

Same, 1897.	Same, 1901.	Same, 1907.	Same, 1910.
Same, 1898.	Same, 1902.	Same, 1908.	Same, 1911.
Same, 1900.	Same, 1903.	Same, 1909.	Same, 1912.

#### BULLETINS.

[In applying for these bulletins the name of the bureau as well as the number of the bulletin should be given, as "Bureau of Chemistry, Bulletin No. 39."]

- Bul. 39. Experiments with Sugar Beets in 1893.
  - Exhibit of the Bureau of Chemistry at the Pan-American Exposition, Buffalo, N. Y., 1901.
  - 66. Fruits and Fruit Products: Chemical and Microscopical Examination.
  - 71. A Study of Cider Making in France, Germany, and England, with Comments and Comparisons on American Work.
  - 72. American Wines at the Paris Exposition of 1900: Their Composition and Character.
  - 73. Proceedings of the Ninteenth Annual Convention of the Association of Official Agricultural Chemists, held at Washington, D. C., October 2-4, 1902.
  - 74. The Influence of Soil and Climate upon the Composition of the Sugar Beet, 1901.
  - 76. Insecticide Studies.
  - 78. The Influence of Environment upon the Composition of the Sugar Beet, 1902.
  - 84. Influence of Food Preservatives and Artificial Colors on Digestion and Health. Part II. Salicylic Acid and Salicylates.

    Same, Part III. Sulphurous Acid and Sulphites.
  - 92. The Effect of Water on Rock Powders.
  - 95. The Influence of Environment upon the Composition of the Sugar Beet, 1903.
  - 96. The Influence of Environment on the Composition of the Sugar Beet, 1904, together with a Summary of the Five-Year Investigation.

Bul. 101. The Lime-Sulphur-Salt Wash and Its Substitutes.

102. Foreign Trade Practices in the Manufacture and Exportation of Alcoholic Beverages and Canned Goods.

103. Experimental Work in the Production of Table Sirup at Waycross, Ga., 1905, together with a Summary of the Four-Year Experiment on Fertilization of Sugar Cane.

104. Food Legislation during the Year Ended June 30, 1906.

107. Revised. Official and Provisional Methods of Analysis, Association of Official Agricultural Chemists.

109. Some Technical Methods of Testing Miscellaneous Supplies, Including Paints and Paint Materials, Inks, Lubricating Oils, Soaps, etc.

112. Food Legislation during the Year ended June 30, 1907. Part I. Federal Laws and Laws of States and Territories, Alabama to New Hampshire, Inclusive.

113. Injury to Vegetation and Animal Life by Smelter Fumes.

115. A Preliminary Study of the Effects of Cold Storage on Eggs, Quail, and Chickens.

118. Unfermented Apple Juice.

120. The Feeding Value of Cereals, as Calculated from Chemical Analyses.

123. Metabolism of Organic and Inorganic Phosphorus.

127. Influence of Environment on the Composition of Sweet Corn, 1905-1908.

128. Tri-local Experiments on the Influence of Environment on the Composition of Wheat.

129. Enological Studies: I. Experiments in Cider Making Applicable to Farm Conditions. II. Notes on Use of Pure Yeasts in Wine Making.

132. Proceedings of the Twenty-Sixth Annual Convention of the Association of Official Agricultural Chemists Held at Denver, Colo., August 26-28, 1909.

134. Maple-Sap Sirup: Its Manufacture, Composition, and Effect of Environment Thereon.

136. Shellfish Contamination from Sewage-Polluted Waters, and from Other Sources.

138. Translocation of Plant Food and Elaboration of Organic Plant Material in Wheat Seedlings.

144. Wood Turpentine: Its Production, Refining, Properties, and Uses.

145. Enological Studies. The Chemical Composition of American Grapes Grown in Ohio, New York, and Virginia.

146. Analysis of Sugar Beets, 1905 to 1910, together with Methods of Sugar Determination.

149. The Growth of Wheat Seedlings as Affected by Acid or Alkaline Conditions.

153. Determination of Lithium.

154. Chemical Analysis and Composition of Imported Honey from Cuba, Mexico, and Haiti.

155. Large-Scale Experiments on the Processing of Japanese Persimmons, with Notes on the Preparation of Dried Persimmons.

156. Sewage-Polluted Oysters as a Cause of Typhoid and Other Gastrointestinal Disturbances.

158. A Bacteriological Study of Shell, Frozen, and Desiccated Eggs; Made under Laboratory Conditions at Washington, D. C.

159. Pulp and Paper and Other Products from Waste Resinous Woods.

160. A Study of Nuts with Special Reference to Microscopic Identification.
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#### CIRCULARS.

[In applying for these circulars the name of the bureau as well as the number of the circular should be given, as "Bureau of Chemistry, Circular No. 15."]

Cir. 15. Results of Borax Experiment.

- Revised. Officials Charged with the Enforcement of Food Laws in the United States and Canada. (Revised to July 1, 1912.)
- 21. Proposed Regulations Governing the Labeling of Imported Food Products.
- 25. Coloring Matters for Foodstuffs and Methods for their Detection. A Preliminary Report Made to the Association of Official Agricultural Chemists.
- 31. General Results of the Investigation Showing the Effect of Salicylic Acid and Salicylates upon Digestion and Health.

34. Examination of Papers.

- 36. Chemical Methods for Utilizing Wood, Including Destructive Distillation, Recovery of Turpentine, Rosin, and Pulp, and the Preparation of Alcohol and of Oxalic Acid.
- 41. Paper-Making Materials and Their Conservation.
- 53. Suggested Modification of the Winton Lead Number.
- 54. Analysis of Canned Peas and Beans, Showing Composition of Different Grades.
- 59. The Destruction of the Enzym Invertase by Acids, Alkalis, and Hot Water.
- 60. A Theory of the Influence of Acids and Alkalis on the Activity of Invertase.
- 61. How to Kill and Bleed Market Poultry.
- 67. A Method for the Determination of Tin in Canned Foods.
- 68. Tomato Ketchup under the Microscope; with Practical Suggestions to Insure a Cleanly Product.
- 70. The Comparative Rate of Decomposition in Drawn and Undrawn Poultry.
- 71. Extraction of Grains and Cattle Foods for the Determination of Sugars: A Comparison of the Alcohol and the Sodium Carbonate Digestions.
- 72. An Electrically Controlled Constant Temperature Water Bath for the Immersion Refractometer.
- 75. Studies on Chicken Fat. I. The Occurrence and Permanence of Lipase in the Fat of the Common Fowl. II. The Oxidation of Chicken Fat by Means of Hydrogen Peroxid.
- 77. Determination of Camphor.
- 78. Changes Taking Place During the Spoilage of Tomatoes, with Methods for Detecting Spoilage in Tomato Products.
- 80. Two New Pieces of Chemical Apparatus. I. Apparatus for the Continuous Extraction of Liquids with Immiscible Solvents Lighter than Water. II. Apparatus for Quantitative Reactions which Depend on the Measurement of an Evolved Gas.
- 83. Deterioration of Eggs, as Shown by Changes in the Moisture Content.
- 86. The Refractive Index of Beeswax.
- Extracts from the Proceedings of the Association of Official Agricultural Chemists, 1911.
- 92. A Chemical Investigation of American Spearmint Oil.
- 94. The Volatile Acidity of Gum Tragacanth Compared with that of Indian Corn.
- 96. A Measurement of the Translucency of Papers.
- 98. Practical Suggestions for the Preparation of Frozen and Dried Eggs.
- 99. The Estimation of Minute Amounts of Arsenic in Foods.
- 100. Grading Rosin at the Still.
- 101. The Ignition of Precipitates without the Use of the Blast Lamp.
- 102. The Determination of Arsenic.

- Cir. 103. Studies on Chicken Fat. III. Influence of Temperature on the Lipolysis of Esters. IV. The Hydrolysis of Chicken Fat by Means of Lipase. V. The Occurrence of Catalase, Oxidases, and Reductases in the Fat of the Common Fowl.
  - 104. A Study of the Enzyms of the Egg of the Common Fowl.
  - 105. The Determination of Malic and Tartaric Acids in the Same Solution.
  - 106. The Determination of Tartaric Acid.
  - 108. Extracts from the Proceedings of the Association of Official Agricultural Chemists, 1912. Reports on the Recommendations of Referees.
  - 109. A Chemical Investigation of the Composition of the Oil of Chenopodium.
  - 110. Identification of Tanned Skins.

#### REPORTS OF SUGAR-BEET INVESTIGATIONS.

[In applying for these publications, the name of the bureau as well as the full title of the publication should be given.]

Experiments with Sugar Beets in 1897. Published as a part of "Progress of the Beet-Sugar Industry in the United States in 1897."

Same, 1898.

Same, 1899.

Same, 1903.

Analysis of the Sugar-Beets Grown in Various States.

#### MISCELLANEOUS.

[In applying for these publications, the name of the bureau as well as the full title of the publications should be given.]

Model Denatured Alcohol Distillery.

Knife for Killing Poultry.

#### FARMERS' BULLETINS.

[In applying for these publications, the number of the publication should be given, as "Farmers' Bulletin No. 52."]

- F. B. 52. The Sugar Beet.
  - 269. Industrial Alcohol: Uses and Statistics.
  - 359. Canning of Vegetables in the Home.
  - 377. Harmfulness of Headache Mixtures.
  - 393. Habit-Forming Agents.
  - 410. Potato Culls as a Source of Industrial Alcohol.
  - 429. Industrial Alcohol: Sources and Manufacture.
  - 474. The Use of Paint on the Farm.
  - 477. Sorghum-Sirup Manufacture.
  - 516. The Production of Maple Sirup and Sugar.

## SEPARATE REPRINTS FROM THE YEARBOOK.

[In applying for these separates, the number should be given, as "Yearbook Separate No. 485."]

Y. B. Sep. 485. The Manufacture of Flavoring Extracts.

529. Inspection of Imported Food and Drug Products.

544. The Value of the Shellfish Industry and the Protection of Oysters from Sewage Contamination.

b69. Decomposition and Its Microscopical Detection in Some Food Products.

### Approved:

D. F. HOUSTON,

Secretary of Agriculture.

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